



**Montana Department of  
ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

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Helena, MT 59620-0901

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**PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION**

Date of Mailing: March 16, 2009

Name of Applicant: Century Construction Co.

Source: Drum Mix Asphalt Batch Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 2527-01.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by March 31, 2009. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Trista Glazier  
Air Quality Specialist  
Air Resources Management Bureau  
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VW:TG  
Enclosures

## MONTANA AIR QUALITY PERMIT

Issued To: Century Companies, Inc.  
P.O. Box 579  
Lewistown, MT 59457

Permit: #2527-01  
Application Complete: 2/5/09  
Preliminary Determination Issued: 3/16/09  
Department's Decision Issued:  
Permit Final:  
AFS #:777-2527

An air quality permit, with conditions, is hereby granted to Century Companies, Inc. (Century) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Plant Location

Century operates a portable drum mix asphalt plant, which will initially be located at SW ¼ of the SE ¼ of Section 30, Township 8 South, Range 8 East in Park County, Montana. However, Montana Air Quality Permit (MAQP) #2527-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

#### B. Current Permit Action

On December 19, 2008, the Department received a request from Century to include the horsepower rating of the diesel-fired generator/engines associated with Permit #2527-00. The current permit action updates the permit to include the horsepower rating as well as updates the permit to reflect current permit format, language, emission inventory, and rule references.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. Asphalt plant particulate matter emissions shall be limited to 0.04 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.340 ARM 17.8.752, and 40 CFR 60, Subpart I).
2. Century shall not cause or authorize to be discharged into the atmosphere from the asphalt plant stack any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart I).
3. Century shall not cause or authorize to be discharged into the atmosphere from dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems, any visible emissions that exhibit opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

4. Century shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
5. Century shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).
6. A device to measure the pressure drop (magnehelic gauge, manometer, etc.) on the control device (wet scrubber) must be installed and maintained. Pressure drop must be measured in inches of water. Temperature indicators at the control device inlet and outlet must be installed and maintained (ARM 17.8.749).
7. Once a stack test is performed, the asphalt production rate shall be limited to the average production rate during the last source test demonstrating compliance (ARM 17.8.749).
8. Century shall not operate more than two diesel engine/generators at any given time and the engines shall not have a combined capacity greater than 408 hp (ARM 17.8.749).
9. If the permitted equipment is used in conjunction with any other equipment owned or operated by Century, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
10. Century shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Subpart I, as it applies to this asphalt operation (ARM 17.8.340 and 40 CFR 60, Subpart I).
11. Century shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start up, an Environmental Protection Agency (EPA) Methods 1-5 source test shall be performed on the asphalt plant to demonstrate compliance with Section II.A.1. An EPA Method 9 opacity test shall be performed in conjunction with all particulate tests to demonstrate compliance with the conditions specified in Sections II.A.2. and II.A.3. The plant was last tested October 2008, testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
2. Pressure drop on the control device and temperature must be recorded daily and kept on site according to Section II.C.2 (ARM 17.8.749).

3. Pressure drop on the control device and temperatures must be recorded during the compliance source test and reported as part of the test results (ARM 17.8.749).
4. Since asphalt production will be limited to the average production rate during the compliance source test, it is suggested the test be performed at the highest production rate practical (ARM 17.8.749).
5. Century may retest at any time in order to test at a higher production rate (ARM 17.8.749).
6. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
7. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this asphalt plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Century shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Century shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
4. Century shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Century as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

### SECTION III: General Conditions

- A. Inspection – Century shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Century fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Century of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Century may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Century shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Permit Analysis  
Century Construction Co.  
Permit #2527-01

I. Introduction/Process Description

Century Construction Co (Century) owns and operates a drum mix asphalt batch plant.

A. Permitted Equipment

- Drum Mix Asphalt Plant (150 ton per hour (TPH)) controlled with a venturi wet scrubber
- Propane-fired Dryer
- Propane-fired Hot Oil Heater
- Lime Silo
- Diesel-Powered Engine Generator (348 horsepower (hp))
- Diesel-Powered Engine Generator (60 horsepower (hp))

B. Source Description

For a typical operational set-up, two different raw materials are introduced into the drum mixer. First, aggregate materials are taken from the on-site aggregate stockpiles and dumped via a front end loader into the cold aggregate feed bins. The cold aggregate is then transferred from the cold aggregate feed bins via conveyor to the drum mixer. The cold aggregate is dried and mixed with the other raw material in the drum mixer and the drum mixer burner is fired with propane. Oil is then introduced to the drum mixer through hoses from the propane fired portable hot oil heater tank. Once all raw materials have been introduced into the drum mixer they are continuously mixed and heated by the drum mixer burner. A diesel-fired engine/generator set powers the operation.

After heating and mixing is completed, the asphalt product is transferred from the drum mixer to the asphalt product silo via a conveyor. The asphalt remains in the asphalt silo until it is loaded into trucks for transport to a given job location.

C. Permit History

**Montana Air Quality Permit (MAQP) #2527-00** was issued to Century on March 28, 1989.

D. Current Permit Action

On December 19, 2008, the Department of Environmental Quality (Department) received a request from Century to include the horsepower rating of the diesel-fired generator/engines associated with MAQP #2527-00. The current permit action updates the permit to include the horsepower rating as well as updates the permit to reflect current permit format, language, emission inventory, and rule references. **MAQP #2527-01** replaces MAQP #2527-00.

E. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response

F. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Century shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Century must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Century shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
4. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
5. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Century is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
  - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart I – Standards of Performance of Hot Mix Asphalt Facilities. In order for an asphalt plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Riverside, the Asphalt plant equipment to be used under MAQP #2527-01 is subject to this subpart because the facility is a hot mix asphalt facility.
  - c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression. Ignition (CI) Internal Combustion Engines (ICE). indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2005, and is not a fire pump engine. Since this permit is written in a de minimis friendly manner, this regulation may apply to engines in the future.
6. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below.
  - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs) Subpart as listed below.

- b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, the diesel RICE will be subject to this rule. However, although diesel RICE engines are an affected source, per 40 CFR 63.5490(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006. Since the permit is written in a de minimis friendly manner, area source provisions of the Maximum Available Control Technology (MACT) requirements may apply to future engines.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Century submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Century has a PTE greater than 15 tons per year of particulate matter (PM), particulate matter with a diameter greater than 15 microns (PM<sub>10</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), and oxides of sulfur (SO<sub>x</sub>); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Century submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Century submitted an affidavit of publication of public notice for the January 23, 2009, issue of *The Livingston Enterprise*, a newspaper of general circulation in the town of Livingston in Park County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Century of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack

that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2527-01 for Century, the following conclusions were made.
  - a. The facility's PTE is less than 100 tons/year for any pollutant.

- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is subject to a current NSPS (40 CFR 60, Subpart I and potentially subject to Subpart IIII).
  - e. This facility is potentially subject to area source provisions of a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
  - f. This source is not a Title IV affected source or a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.
3. Based on these facts, the Department has determined that Century will be a minor source of emissions as defined under Title V.

### III. BACT Determination

A BACT determination is required for each new or altered source. Century shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized.

The current permit action is to modify the permit to add a diesel-powered engine as well as include the hp rating to MAQP #2527-01. Because of the limited amount of emissions produced by the diesel engines and the lack of readily available, cost effective add-on controls; add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no additional controls would constitute BACT for the diesel engines.

### IV. Emission Inventory

Emission Source	tons/year					
	PM	PM10	CO	NOx	VOC	SO2
Cold Aggregate Storage Piles	1.09	0.51	0.00	0.00	0.00	0.00
Cold Aggregate Handling/Conveyors	0.18	0.06	0.00	0.00	0.00	0.00
Cold Aggregate Screens	2.37	1.45	0.00	0.00	0.00	0.00
Propane-Fired Asphalt Oil Heater	0.00	0.00	0.00	0.00	0.00	0.00
150 TPH Drum Mix Asphalt Plant Dryer	20.91	15.11	85.41	17.08	2.23	28.91
Asphalt Product Silo Filling	0.38	0.00	0.00	0.78	0.00	0.00
Batch Mix Plant Load-Out	0.343	0.00	0.00	0.886	0.00	0.00
Lime Silo	0.01	0.01	0.00	0.00	0.00	0.00
Haul Roads / Vehicle Traffic	5.68	1.57	0.00	0.00	0.00	0.00
Diesel-Powered Engine/Generator (348 hp)	3.35	3.35	10.18	47.25	3.76	3.12
Diesel-Powered Engine/Generator (60 hp)	0.58	0.58	1.76	8.15	0.65	0.54
<b>Total Emissions</b>	<b>66.20</b>	<b>22.64</b>	<b>97.35</b>	<b>74.14</b>	<b>6.65</b>	<b>32.57</b>

#### Operating Parameters:

Operating Hours: 8760 hr/yr  
 Plant Elevation 3000 ft. Department Information  
 Actual Pressure 26.8 in. Hg Department Information  
 Standard Pressure 29.92 in. Hg  
 Flowrate 22,000 acfm (Company Information)

Std. Temp: 25 C 77 F 537 R  
 Assumed Stack Temp. 149 C 300 F 760 R  
 Correction Equation:  $V1 = V2 (P2/P1) (T1/T2)$   
 Corr. Flowrate 22,0000 acfm \* (26.8 in. Hg / 29.92 in. Hg) \* (537 R / 760 R) = 13924 dscfm  
 Process Rate: 150 ton/hr (Company Information)

**Dryer, fabric filter (SCC 3-05-002-05, -55 to -63)**

Maximum Process Rate = 150 ton/hr (Application information)

Maximum Hours of Operation = 8,760 hrs/yr

**PM Emissions:**

Emission Factor = 0.04 gr/dscf (permit limit)

Calculation:  $(13,924 \text{ dscfm}) * (8760 \text{ hrs/yr}) * (0.04 \text{ gr/dscf}) * (1 \text{ lb}/7000 \text{ gr}) * (60\text{m/hr}) * (\text{ton}/2000 \text{ lb}) = 20.91 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.023 lb/ton (fabric filter, AP 42, Table 11.1-3, 3/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.023 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 15.11 \text{ ton/yr}$

**CO Emissions:**

Emission Factor = 0.13 lb/ton (natural gas-fired dryer, AP 42, Table 11.1-7, 3/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.13 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 85.41 \text{ ton/yr}$

**NO<sub>x</sub> Emissions:**

Emission Factor = 0.026 lb/ton (natural gas-fired dryer, AP 42, Table 11.1-7, 3/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.026 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 17.08 \text{ ton/yr}$

**SO<sub>2</sub> Emissions:**

Emission Factor = 0.0034 lb/ton (natural gas-fired dryer, AP 42, Table 11.1-7, 3/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.0034 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 2.23 \text{ ton/yr}$

**VOC Emissions:**

Emission Factor = 0.032 lb/ton (natural gas-fired dryer, AP 42, Table 11.1-7, 3/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.032 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 21.02 \text{ ton/yr}$

**Cold Aggregate Storage Piles**

Maximum Process Rate = 150 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

Number of Piles = 1 piles

**PM Emissions:**

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor =  $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00331 \text{ lb/ton}$

Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)

U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)

M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)

Control Efficiency = 50% (Water or chemical spray)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00331 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) = 2.17 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00331 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 50/100) = 1.09 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor =  $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00156 \text{ lb/ton}$

Where:  $k$  = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)

$U$  = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)

$M$  = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)

Control Efficiency = 50% (Water or chemical spray)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00156 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) = 1.03 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00156 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 50/100) = 0.51 \text{ ton/yr}$

**Conveyor Transfer Point (SCC 3-05-02006)**

Maximum Process Rate = 150 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

Number of Transfers = 2 transfers (Excludes RAP transfers)

**Total PM Emissions:**

Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (2 \text{ transfers}) = 0.18 \text{ ton/yr}$

**Total PM<sub>10</sub> Emissions:**

Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.000046 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (2 \text{ transfers}) = 0.06 \text{ ton/yr}$

**Fines Screening (SCC 3-05-020-21)**

Maximum Process Rate = 150 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

Number of Screens = 1 screen(s) (Excludes RAP screen)

**Total PM Emissions:**

Emission Factor = 0.0036 lb/ton (0.30 uncontrolled, 0.0036 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.0036 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ screen(s)}) = 2.37 \text{ ton/yr}$

**Total PM<sub>10</sub> Emissions:**

Emission Factor = 0.0022 lb/ton (0.072 uncontrolled, 0.0022 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.0022 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ screen(s)}) = 1.45 \text{ ton/yr}$

**Hot Oil Heater**

Maximum Fire Rate = 1.46 lb/ft<sup>3</sup> (Propane-fired, Manufacturer data provided in application)

Maximum Hours of Operation = 8,760 hrs/yr

**CO Emissions:**

Emission Factor = 0.0000089 lb/MMBtu (AP-42, Section 11.1, Table 11.1-13, 3/04)

Calculation:  $(8760 \text{ hrs/yr}) * (1.46 \text{ lb/ft}^3) * (0.0000089 \text{ lb/MMBtu}) * (\text{ton}/2000 \text{ lb}) = 0.00 \text{ ton/yr}$

**Silo Filling (SCC 3-05-002-13)**

Maximum Process Rate = 150 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

**Total PM Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.000332 + 0.00105(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00059 \text{ lb/ton}$

Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00059 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.38 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00059 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.38 \text{ ton/yr}$

**Organic PM Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.00105(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00025 \text{ lb/ton}$

Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00025 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.17 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00025 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.17 \text{ ton/yr}$

**TOC Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.0504(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.01219 \text{ lb/ton}$

Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.01219 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 8.01 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.01219 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 8.01 \text{ ton/yr}$

**CO Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.00488(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00118 \text{ lb/ton}$

Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00118 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.78 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00118 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.78 \text{ ton/yr}$

**Plant Load-Out (SCC 3-05-002-14)**

Maximum Process Rate = 150 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

**Total PM Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.000181 + 0.00141(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00052 \text{ lb/ton}$

Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00052 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.34 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00052 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.34 \text{ ton/yr}$

**Organic PM Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.00141(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00034 \text{ lb/ton}$

Where:  $V$  = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)  
 $T$  = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00034 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.22 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00034 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.22 \text{ ton/yr}$

#### **TOC Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.0172(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00416 \text{ lb/ton}$

Where:  $V$  = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

$T$  = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00416 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 2.73 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00416 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 2.73 \text{ ton/yr}$

#### **CO Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor =  $0.00558(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00135 \text{ lb/ton}$

Where:  $V$  = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)

$T$  = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)

Control Efficiency = 0%

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00135 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.89 \text{ ton/yr}$

Calculation:  $(150 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00135 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) = 0.89 \text{ ton/yr}$

#### **Lime Silo**

Maximum Design Capacity = 6 ton/hr (Applicant information)

Maximum Hours of Operation = 8,760 hrs/yr

#### **Total PM Emissions:**

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)

Calculation:  $(6 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.04 \text{ gr/dscf}) * (\text{lb}/7000 \text{ gr}) * (\text{ton}/2000 \text{ lb}) * (60 \text{ min/hr}) = 0.01 \text{ ton/yr}$

#### **Total PM<sub>10</sub> Emissions:**

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)

Calculation:  $(6 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.04 \text{ gr/dscf}) * (\text{lb}/7000 \text{ gr}) * (\text{ton}/2000 \text{ lb}) * (60 \text{ min/hr}) = 0.01 \text{ ton/yr}$

#### **Haul Roads**

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)

VMT per hour =  $(5 \text{ VMT/day}) * (\text{day}/24 \text{ hrs}) = 0.21 \text{ VMT/hr}$

Hours of Operation = 8,760 hrs/yr

#### **PM Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$

Where:  $k$  = constant = 4.9 lbs/VMT (Value for PM<sub>30</sub>/TSP, AP 42, Table 13.2.2-2, 11/06)

$s$  = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

$W$  = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

$a$  = constant = 0.7 (Value for PM<sub>30</sub>/TSP, AP 42, Table 13.2.2-2, 11/06)

$b$  = constant = 0.45 (Value for PM<sub>30</sub>/TSP, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation:  $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 11.37 \text{ tons/yr}$

Calculation:  $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1 - 50/100) = 5.68 \text{ tons/yr}$

**PM<sub>10</sub> Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$

Where:  $k$  = constant = 1.5 lbs/VMT (Value for PM<sub>10</sub>, AP 42, Table 13.2.2-2, 11/06)

$s$  = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

$W$  = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

$a$  = constant = 0.9 (Value for PM<sub>10</sub>, AP 42, Table 13.2.2-2, 11/06)

$b$  = constant = 0.45 (Value for PM<sub>10</sub>, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation:  $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 3.13 \text{ tons/yr}$

Calculation:  $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 1.57 \text{ tons/yr}$

**Diesel Engine Generator**

Operational Capacity of Engine = 348 hp

Hours of Operation = 8,760.00 hours

**PM Emissions:**

PM Emissions = 3.35 tons (Assume PM = PM<sub>10</sub>)

PM Emissions = 6,706.66 lbs (Assume PM = PM<sub>10</sub>)

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation:  $(8,760 \text{ hours}) * (348 \text{ hp}) * (0.0022 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 3.35 \text{ tons}$

**NO<sub>x</sub> Emissions:**

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation:  $(8,760 \text{ hours}) * (348 \text{ hp}) * (0.031 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 47.25 \text{ tons}$

**CO Emissions:**

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation:  $(8,760 \text{ hours}) * (348 \text{ hp}) * (0.00668 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 10.18 \text{ tons}$

**VOC Emissions:**

Emission Factor = 0.00247 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation:  $(8,760 \text{ hours}) * (348 \text{ hp}) * (0.00247 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 3.76 \text{ tons}$

**SO<sub>x</sub> Emissions:**

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation:  $(8,760 \text{ hours}) * (348 \text{ hp}) * (0.00205 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 3.125 \text{ tons}$

**Diesel Engine Generator**

Operational Capacity of Engine = 60 hp

Hours of Operation = 8,760.00 hours

**PM Emissions:**

PM Emissions = 0.58 tons (Assume PM = PM<sub>10</sub>)

PM Emissions = 1,156.32 lbs (Assume PM = PM<sub>10</sub>)

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (60 hp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = 0.58 tons

**NO<sub>x</sub> Emissions:**

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (60 hp) \* (0.031 lbs/hp-hr) \* (ton/2000 lb) = 8.15 tons

**CO Emissions:**

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (60 hp) \* (0.00668 lbs/hp-hr) \* (ton/2000 lb) = 1.76 tons

**VOC Emissions:**

Emission Factor = 0.00247 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (60 hp) \* (0.00247 lbs/hp-hr) \* (ton/2000 lb) = 0.65 tons

**SO<sub>x</sub> Emissions:**

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (60 hp) \* (0.00205 lbs/hp-hr) \* (ton/2000 lb) = 0.539 tons

**V. Existing Air Quality**

This permit is for a portable drum mix asphalt plant to locate in various locations throughout the state of Montana. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of pollutants in the ambient air that will exceed any set standard.

**VI. Air Quality Impacts**

MAQP #2527-01 is issued for the operation of a portable hot mix asphalt plant to be originally located in the SW ¼ of the SE ¼ of Section 30, Township 8 South, Range 8 East in Park County, Montana. MAQP #2527-01 will cover the plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program. In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minimal.

**VII. Ambient Air Impact Analysis**

The Department determined, based on ambient air modeling, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

## VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## IX. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, MT 59620**  
**(406) 444-3490**

**DRAFT ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Century Companies, Inc.  
P.O. Box 579  
Lewistown, MT 59457

*Air Quality Permit number:* 2527-01

*Preliminary Determination Issued:* March 16, 2009

*Department Decision Issued:*

*Permit Final:*

1. *Legal Description of Site:* The asphalt plant would initially operate at the SW ¼ of the SE ¼ of Section 30, Township 8 South, Range 8 East in Park County, Montana. However, MAQP #2527-01 would also apply while operating at any location in Montana, except within those areas having a Department approved permitting program or those areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana.
2. *Description of Project:* Century submitted a complete permit application to add the hp rating of the diesel-powered engine/generators to the permitted equipment.
3. *Objectives of Project:* The objective of this permitting action would be for Century to update the equipment inventory of their existing plant. The issuance of MAQP #2527-01 would allow Century to operate the permitted engine at various locations throughout Montana, including the current location.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Century has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #2527-01.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources				X		Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

There is a possibility that terrestrials would use the same area as the project. Impacts on terrestrial and aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor because the diesel-powered engine/generator would be considered a minor source of emissions, and would have intermittent and seasonal operations. Furthermore, the air emissions would have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of operation (see Section 8.F of this EA). Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the engine’s operation.

B. Water Quality, Quantity and Distribution

Due to the fact that there is no change in operation to this existing asphalt plant the proposed change would not result in an increase in water consumption. Any pollutant deposition in the area would be seasonal and intermittent given the portable nature of the engine. There would be no additional impacts to water resources and therefore, no surface and groundwater quality impacts would be expected.

C. Geology and Soil Quality, Stability and Moisture

There would be no impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because the proposed permit change does not result in a change in operations. As explained in Section 7.F. of this EA, the facility's size, operational requirements, temporary nature of the operation, and conditions placed in MAQP #2527-01 would minimize the impacts from deposition. In addition, the generator would be relatively small in size and located at previously disturbed sites, which would also reduce the potential impact to the local geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

Because small amounts of pollutant deposition would occur on the surrounding vegetation, there would be minor impacts on the local vegetative cover, quantity, and quality. The generator would also be relatively small in size and located at previously disturbed sites. As explained in Section 7.F. of this EA, the Department determined that, as a result of the size and temporary nature of the operation and conditions placed in MAQP #2527-01, any impacts on vegetative cover, quantity, and quality from the deposition of pollutants would be minor.

E. Aesthetics

The proposed permit action would not result in additional noise in the area of operation since the proposed action does not result in a change of operation. MAQP #2527-01 would include conditions to control emissions, including visible emissions, from the plant generator. The generator would be relatively small and temporary and would be used to power the portable asphalt facility at previously disturbed sites. Therefore, any aesthetic impact to a given area would be minor and temporary.

F. Air Quality

The air quality emission impacts from the diesel generator would be minor because MAQP #2527-01 would include conditions limiting the visible emissions (or opacity) from the equipment. In addition, the facility's potential emissions would be limited by MAQP #2527-01 to less than 100 tons per year for any pollutant, resulting in the facility not requiring a Title V Operating Permit. Because of the size and temporary nature of the operation and conditions placed in MAQP #2527-01, impacts from the deposition of pollutants would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts, previously contacted the Montana Natural Heritage Program (MNHP) to identify any species of special concern associated with the proposed site location. Search results indicated that there are such environmental resources in the area. Area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. Species of concern include *Falco peregrinus* (Peregrine Falcon), *Oncorhynchus clarkia bouvieri* (Yellowstone Cutthroat Trout), *Canis Lupis* (Gray Wolf), *Ursus arctos* (Grizzly Bear), *Gulo gulo* (Wolverine), *Lynx Canadensis* (Canada Lynx), and *Bos Bison* (Bison).

The operation of diesel-powered engine/generators would result in the emissions of air pollutants that could result in impacts to these species of concern. However, given the temporary and portable nature of the operations, any impacts would be minor and short-lived. Additionally, operational conditions and limitations within MAQP #2527-01 would aid in the protection of these resources by protecting the surrounding environment. Therefore, air quality impacts from operating the diesel powered generator at the asphalt plant would be minor.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed action would not result in any additional demands on water, air, and energy. While small amounts of water would be used for dust control on the surrounding roadways and job site, no water would be needed to operate the generator.

Furthermore, as described in Section 7.F. of this EA, pollutant emissions generated from the facility would have minimal impacts on air quality in the immediate and surrounding area. Energy would be generated from the use of the new generator, so no other sources of power

would be necessary to operate the facility. The generators would consume energy in the form of diesel fuel, a non-renewable resource. Overall, the equipment is relatively small and would have operational restrictions placed in MAQP #2527-01. Because the facility operations would be seasonal and temporary, demands and impacts to the environmental resource of air and energy would be minor.

#### I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. According to the response from SHPO, there have been a few previously recorded historical or archeological sites within the designated search locale. In addition to the sites there have been a few previously conducted cultural resource inventories done in the areas. However, SHPO indicated there is a low likelihood cultural properties will be impacted. Additionally, the generator would be located within a previously disturbed industrial site typically used for portable asphalt operations. Therefore, the operation of the generator would not impact on any known historical or archeological sites.

#### J. Cumulative and Secondary Impacts

The portable diesel engine/generator would cause minor impacts on the physical and biological environment because the generator would result in emissions of PM, PM<sub>10</sub>, NO<sub>x</sub>, VOCs, CO, and SO<sub>x</sub>. As a result of the temporary or seasonal nature of the facility and conditions and limitations contained within MAQP #2527-01, impacts would be minimized. There is potential for other operations to locate at this site; however, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the site.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services				X		Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The operation of the portable diesel-powered engine/generators would not alter or disrupt any local lifestyles or communities (social structures or mores) in the area of operation because the generators are not new to the facility and would be relatively small, would operate intermittently, and would be used with the existing permitted equipment at a previously disturbed site. Therefore, the existing social structures and mores would not be affected as a result of this permit action.

B. Cultural Uniqueness and Diversity

In the view of the Department, the diesel-powered engine/generators would not have any impact on the cultural uniqueness and diversity of the proposed area of operation because the proposed action does not result in a change of operations for the facility and operations would be temporary and would take place in a previously disturbed industrial area.

C. Local and State Tax Base and Tax Revenue

The proposed action would have little or no impact on the local and state tax base and tax revenue. The facility would be a temporary and seasonal source and would not remain at a site for an extended period of time. No full time or permanent employees would be added as a result of issuing MAQP #2527-01. Furthermore, any revenue created through the use of the generator would be for a relatively short time period.

D. Agricultural or Industrial Production

The diesel-powered engine/generators would be used at previously disturbed industrial areas; therefore, the Department does not expect that the permitted operation would impact or displace agricultural production. Furthermore, only minor impacts on any local industrial production would be expected because the operation of the diesel-powered engine/generators would be temporary and would be relatively small in size.

E. Human Health

MAQP #2527-01 would incorporate conditions to ensure that the generator operations would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this generator would be minimized opacity limitations established in MAQP #2527-01. Therefore, any associated impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

This facility would be located on previously disturbed property and would not impact access to recreational and wilderness activities. However, minor impact on the quality of recreational activities might be created by the noise from the generator. Emissions from this generator would be minimized as a result of limitations placed in MAQP #2527-01 and the temporary and portable nature of the operation.

G. Quantity and Distribution of Employment

As a result of the relatively small size and temporary nature of the operation, the quantity and distribution of employment in the area would not be impacted. No full time, permanent employees would be employed as a result of issuing MAQP #2527-01.

H. Distribution of Population

Given the relatively small size and portable nature of the operation and the surrounding land usage, the normal population distribution in the area would not be affected.

I. Demands for Government Services

Although minor increases would be observed in the local traffic on existing roads in the area where the facility operates, the addition proposed action does not result in a change to existing operations and would not result in a need for new, altered, or additional government services.

J. Industrial and Commercial Activity

The operation of the generator would represent only a minor increase in the industrial activity in any given area because of the small size and the portable and temporary nature of the facility; therefore, only minor additional industrial or commercial activity would result from the generator operations.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would be affected by issuing this permit. The applicable state and federal standards would protect the environment surrounding the site.

L. Cumulative and Secondary Impacts

The diesel-powered engine/generators would cause only minor cumulative and secondary impacts to the social and economic aspects of the human environment because of the potential air emissions from the engine/generators and increase in local traffic in the immediate area. Further, because the asphalt production facility is relatively small and operates temporarily, only minor social and economic impacts to the local economy could be expected from the operation of the facility. New businesses would not be drawn to any areas and permanent jobs would not be created or lost as a result of the proposed project. Because no new employees would be hired, there would be no economic impacts from new employees. Thus, the operation of the engine/generator would result in only minor cumulative and secondary impacts would result to the social and economic environment.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of diesel-powered engine/generators at a batch mix asphalt plant. MAQP #2527-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources  
Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural  
Resource Information System – Montana Natural Heritage Program

EA prepared by: Trista Glazier  
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